In 1966, Australia changed its way of measuring lengths from the old English Imperial system of yards, feet, inches, miles etc to the Metric system which is all based on multiples of 10, and which is much easier to work with.

We also changed our money from Pounds and shillings to Dollars and cents, and weights from pounds and ounces to kilograms and grams etc.

There are still some people and some industries which work in the Imperial units.

**[](http://www.acclaimimages.com/_gallery/_image_pages/0387-0901-2201-5644.html)Changing lengths**

Some information:

1. [](http://www.acclaimimages.com/_gallery/_pages/0515-1003-1515-5153.html)The distance from the top of an adult’s thumb to the

first joint is about **1 inch**.

1 inch = 2.54 cm

1. An average sized man’s foot is about **1 foot** long.

12 inches = 1 foot = 30.5 cm

1. Lengths of material used to be measured in yards, where 1 yard was approximately the distance from the tip of a person’s nose to the end of his/her outstretched hand.

1 **yard** = 3 feet = 914 mm

1. **1 mile** = 1760 yards = 1609 m = 1.609 km.

1. Use the above information to complete these sentences:

a. There are ......... inches in 2 feet.

b. There are ......... inches in 3 yards.

c. There are ......... feet in 30 yards.

d. There are ......... yards in 3 miles.

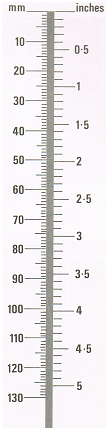
e. There are ......... feet in 2 miles.

f. There are ......... inches in 1 mile.

2. Using your calculator decide which of each pair of measurements is longer:

|  |  |
| --- | --- |
| a. 3 cm or 1 inch | e. 30 cm or 1 foot |
| b. 6 inches or 12 cm | f. 5 miles or 8 km |
| c. 10 inches or 1 foot | g. 1 mile or 1000 m |
| d. 1 metre or 2.5 feet | h. 50 m or 60 yards |

3. Use the ruler drawn here to change these measurements.

 You can check these using your calculator given that

1 mm = 0.04 inches and 1 inch = 25.4 mm

|  |  |  |
| --- | --- | --- |
| 1 | 2 mm | ...... inches |
| 2 | 10 mm | ...... inches |
| 3 | 90 mm | ...... inches |
| 4 | ...... mm | 2 inches |
| 5 | ...... mm | 10 inches |
| 6 | ...... mm | 30 inches |
| 7 | ....... cm | 10 inches |
| 8 | ...... cm | 30 inches |
| 9 | ....... mm | 1 foot |
| 10 | 30 cm | ....... inches |

[](http://www.google.com.au/imgres?imgurl=http://agri.state.nv.us/images/AGRI_J2.jpg&imgrefurl=http://agri.state.nv.us/agri_justkids.htm&usg=__6441sJmaRl6anKU2MrT4R3jfoEQ=&h=97&w=130&sz=4&hl=en&start=6&um=1&itbs=1&tbnid=ILuZchUePeyQOM:&tbnh=68&tbnw=91&prev=/images%3Fq%3Dpicture%2Bof%2Binsects%2Bfor%2Bkids%26um%3D1%26hl%3Den%26sa%3DX%26rlz%3D1T4GGLL_enAU353AU354%26tbs%3Disch:1)

3. Problems

[](http://www.google.com.au/imgres?imgurl=http://www.ifood.tv/files/u15150/bullet_ice_cube_0.jpg&imgrefurl=http://www.ifood.tv/blog/bullet_ice_cube_tray_for_the_bond_party&usg=__IbCm5r50Y7FAZGQ6BnHYJ18q2HA=&h=300&w=300&sz=25&hl=en&start=7&um=1&itbs=1&tbnid=i1-wMxeiKy4G4M:&tbnh=116&tbnw=116&prev=/images%3Fq%3Dpicture%2Bof%2Bbullets%2Bfor%2Bkids%26um%3D1%26hl%3Den%26sa%3DN%26rlz%3D1T4GGLL_enAU353AU354%26ndsp%3D18%26tbs%3Disch:1) a. An insect is 0.4 inches long. What is this in mm ?

b. A gun uses 14 mm bullets. What size are these in inches?